



Dual Degree
Engineering Dept.

Automatic Target Recognition System

Mark McKelvin

Advisors: Dr. Lance Kaplan, Dr. Shahrouz Aliabadi, Dr. Olu Olatidoye



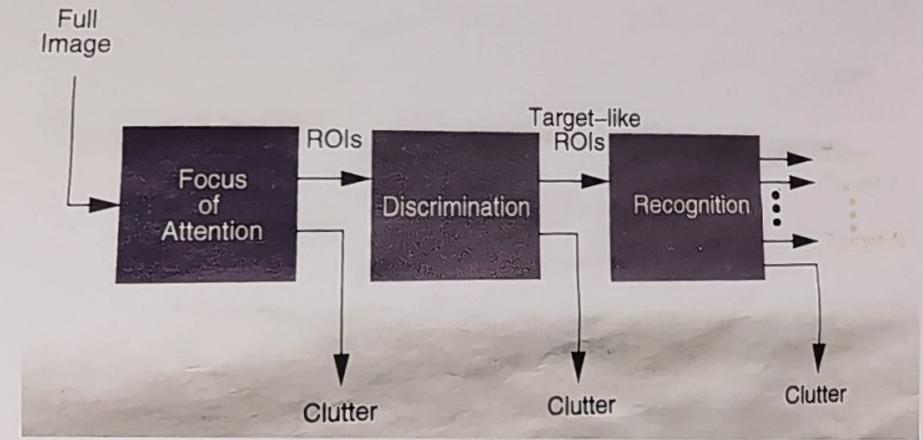
OBJECTIVE

- Develop FOA Algorithm for ATR System Using Synthetic Aperture Radar Imagery (SAR)
- Optimization for FOA Processing
- Visualization - R.O.C.C. Graph
- Evaluate R.O.C.C. Graph - MPI

SIGNIFICANCE

- To enhance the performance of a SAR Automatic Target System
- To detect enemy threats as a result of the System throughout different terrain
- to observe the effects of combining various statistics
- To evaluate the results quicker and more efficient

GENERIC ATR SYSTEM

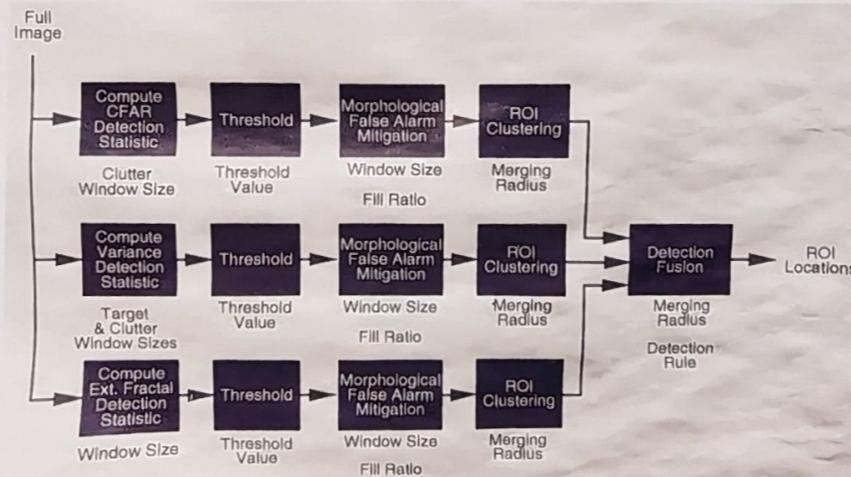


RESULTS

Example: SAR Image



Parameter Optimization for FOA Processing



Receiver - Operator - Characteristic Curves

